Gunter's Island Mitigation Plan Supplemental Information

I-73 Project History and ACT Meetings

- The Agency Coordination Team (ACT) for the I-73 project was developed during the NEPA phase of the project to include various agencies in the process. Mitigation was one of the topics discussed by the ACT members.
- Use of the SOP for the I-73 project was discussed at many of the ACT meetings. All agreed that it does not work well for larger linear projects, but there needed to be a way to calculate the impacts and credit requirements for the project. It was pointed out that the SOP was to be used as a guideline and that other methods could be used to arrive at the compensatory requirements. Discussions about the use of landscape scale mitigation approach also occurred at ACT meetings. It was pointed out that the SOP allowed for the use of landscape scale mitigation and that it is more of a general consensus among agencies on whether the proposed mitigation site provides adequate compensation, even though it is not quantifiable. Many agreed that having flexibility in assessing the restoration and preservation components in order to find a good landscape scale mitigation site would be beneficial..

I-73 Project Information

- Located within 3 HUCs: 03040201 (Pee Dee), 03040204 (Little Pee Dee), and 03040206 (Waccamaw)
- Located within 2 EPA Level III Ecoregions: Southeastern Plains and Middle Atlantic Coastal Plains
- Impacts 4,643 linear feet of stream and 342.3 acres of wetlands

Gunter's Island Mitigation Site

- 6,134 total acres
    - 89,836 linear feet of stream
        - Evan's Branch – 18,467 linear feet
        - Unnamed Tributary to Little Pee Dee River – 13,289 linear feet
        - Little Pee Dee River – 58,050 linear feet
        - Not all streams included in total:
            - Oxbow and braided systems not included
    - 4583.1 acres of wetland
        - NWI/Hydric Soils
            - Only overlapping areas included
        - Field verified
- Located within HUC 03040204 (Little Pee Dee) and Middle Atlantic Coastal Plain
    - Where 74% of wetland impacts occur
    - 78% of stream impacts occur
    - Location and in-kind factors would not fulfill SOP requirements
        - SCDOT would need to supply multiple smaller sites to cover credit needs
        - Would contradict landscape scale mitigation as recommended by ACT Team

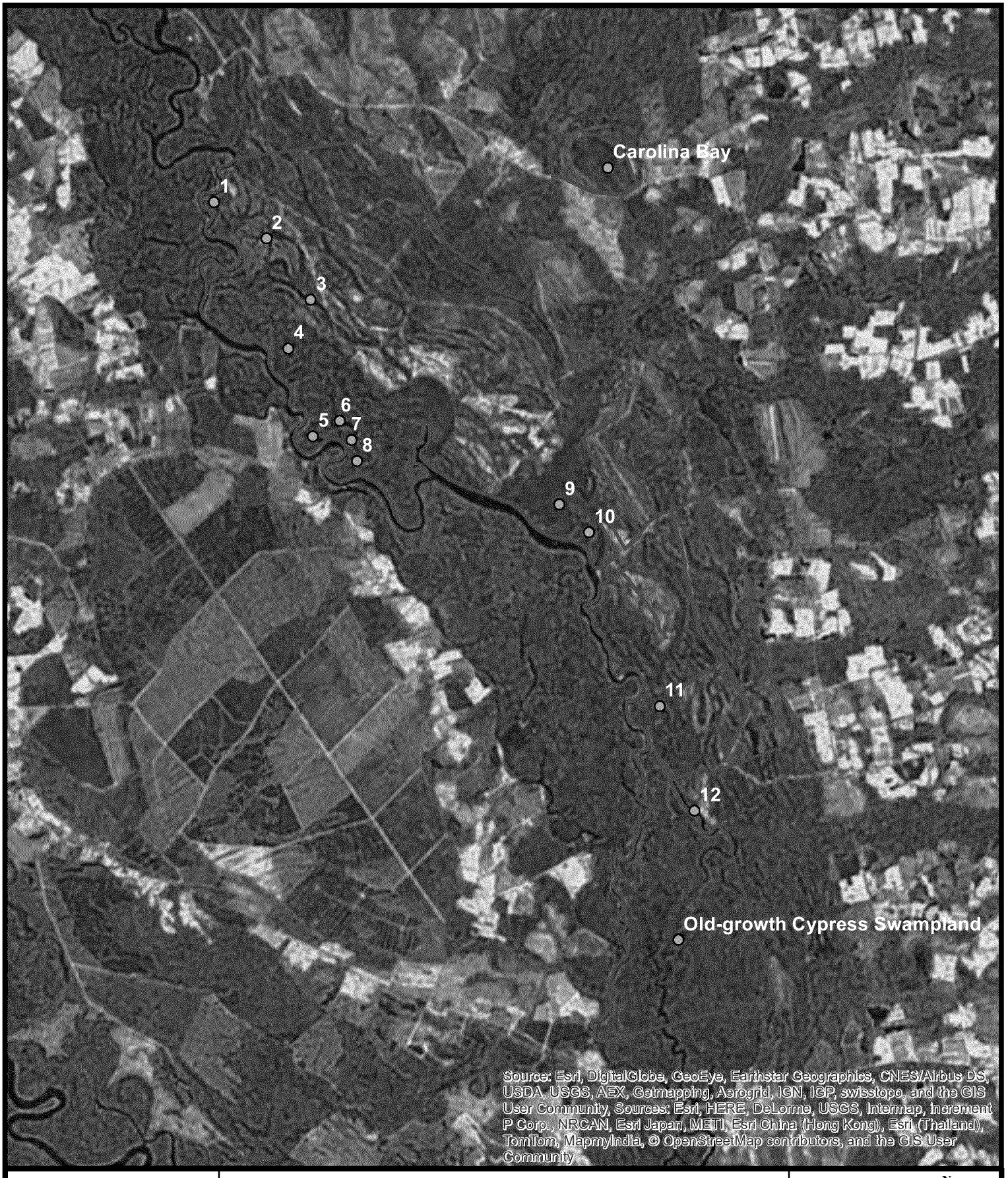
- Criteria for landscape scale preservation
    - Resources to be preserved provide important physical, chemical and biological functions and contribute significantly to the ecological sustainability of the watershed,
        - Physical – Provides flow maintenance functions, including retention of storm water runoff, temporary storage of floodwaters and reduction of sedimentation from adjacent agricultural and silviculture practices
        - Chemical – Removes excess nutrients that may contribute to the system by runoff from adjacent or upstream developed areas, reducing nitrogen and phosphorous loading downstream and preventing oxygen depletion that may result from eutrophication.
        - Biological – Provides habitat, travel corridors and spawning areas for various species of fish, reptiles, amphibians, birds and mammals and provides foraging and shelter for all indigenous wildlife species, including wetland dependent species.
    - Resources to be preserved are under threat of destruction or adverse modification
        - SCDNR's Little Pee Dee-Lumber Focus Area plan identifies habitat fragmentation via land conversion from typical agriculture practices to non-traditional uses, development and poor land management practices as a key threat to areas within the watershed. Continued development along the US378 and US501 corridor typifies the type of land use changes that threaten fish and wildlife populations and water quality within the basin. These land use changes and practices impact aquatic habitats by increasing silt and sediment loads, introducing excessive nutrients and chemical contaminants, altering water availability due to irrigation and instream habitat due to sand mining. Habitat fragmentation negatively impacts wildlife population viability by reducing the amount or quality of available habitat, by removing native vegetation and increasing opportunity for invasive species to become established. Fragmented habitats may not be large enough nor adequately connected to support species that need more territory to reproduce, rear young, forage for food, and store healthy body reserves.
        - 11 miles of river frontage on the Little Pee Dee River, which has been determined to be eligible for State Scenic River Status
        - Protects approximately 400 acres of virgin cypress swamp; believed to be the only virgin cypress bottomland forest left in South Carolina
        - Preserves approximately 12 oxbow lakes, as well as numerous other ancient oxbow channels (The oxbow lakes are numbered 1 through 12 on the attached figure)
        - Protects an Aquatic Resource of National Importance as classified by US Environmental Protection Agency
        - Protects outstanding water resource designated by SC Department of Health and Environmental Control

        - Benefits to the shortnose sturgeon and red -cockaded woodpecker, that are currently listed as endangered species
    - The proposed preservation sites will be permanently protected by a third party conservation easement or title transfer to a state agency or land trust
        - Transfer to SCDNR for incorporation into the Heritage trust Program
        - Gunter's Island provides recreational opportunities and p ublic access consistent w/ ACT recommendations and public interest

- Mitigation
    - Due to the difficulties of following the SOP, the decision was made to follow a landscape approach instead of providing many small sites that would be required to meet SOP guidelines
    - Alternative Ratios

	I-73 Impacts	Gunter's Island Preservation	Ratio
Stream	4,643 linear feet	89,836 linear feet	1:19
Wetland	342.3 acres	4,583 acres	1:13

    - Anticipated Enhancement Opportunities
        - Several culverts have been identified for potential removal and conversion to a ford style crossing. Expected work in these enhancement areas would include removal of the culvert, removal of the road causeway in the wetland, and adding rock and gravel to secure the roadway. Monitoring around ford crossing is expected to consist of cross-sections to show that the scour h oles have filled in.
        - Some roads with culverts have been identified for potential complete removal. Restoration activities within these areas would be expected to include removal of culvert and causeway, grading the cleared area, and replanting the area with appropriate species. Monitoring of this area includes cross -sections, wells, and vegetation plots.
        - 1,113 acres of planted pine that will likely be harvested for timber then graded and replanted with appropriate vegetation. Monitoring of this area includes cross-sections, wells, and vegetation plots.



SCDOT
South Carolina Department of Transportation

Gunter's Island - Features for Preservation

I-73 Compensatory Mitigation Plan
Gunter's Island Tract

N
W E
S

0 750 1,500 Yards

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